REMARKS

Claims 13-16 and 18-24 are presently pending in the application.

Claims 13-16, 18, 21 and 24 are currently amended.

Claims 1-12 and 17 are canceled without prejudice or disclaimer.

Claims 19-20 and 22-23 are pending as previously presented.

The Examiner allowed claim 17 if rewritten to overcome a rejection under § 112, ¶ 2, and to include all the base and intervening limitations. Hence, claim 13 has been amended to contain the limitations of claim 17 and is equivalent to the subject mater of claim 17 amended to contain the base and intervening limitations.

Applicants have amended claims 14-16 to reference the pending claim 13 instead of claim 1. Claim 16 also makes proper reference to claim 14 instead of claim 2. Claim 18 has been amended to depend from claim 14 or 16 and to correct a typographical error, as has claims 21 and 24.

No new matter within the meaning of § 132 has been added by any of the amendments.

Accordingly, Applicants respectfully request the Examiner to enter the amendments, reconsider the rejections and allow all

claims pending in this application.

1. Rejection of Claims 14-24 under 35 U.S.C. § 112, ¶ 2

The Office Action rejected claims 14-24 under 35 U.S.C. § 112, ¶ 2 as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. The Office Action stated:

> In claims 14 to 16, reference to the formulas as described in claim 1 is confusing since claim 1 has been canceled.
> In claim 17, reference to "the monomer (A) and/or the monomer (B)" in claim 14 and 16 lack antecedent basis while in claim 18, reference to the "the trimethylsilyl group containing compound and/or the tris(trimethylsiloxy)silyl containing compound" in claims 13 or 15 lacks antecedent basis.

Applicants have amended claims 14-16 to reference claim 1. Claim 16 also makes proper reference to claim 14 instead of claim 2. Claim 18 has been amended to depend from claim 14 or 16. Claim 17 has been deleted and hence the rejection is moot over that claim.

Accordingly, Applicants respectfully request withdrawal of the rejection.

2. Rejection of Claims 13, 15 and 19 under 35 U.S.C. § 102(b)

The Office Action rejected claims 13, 15 and 19 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,998,501 ("Tsutsumi *et al.*"). The Office Action stated:

> Tsutsumi *et al.* teach a process producing an aqueous ink in which trimethyl silyl group containing copolymer is added to ink (or coating) composition as shown by Example 1 of the reference. The Examiner alleged that this shows the preparation of a copolymer by reacting t-butylmethacrylate (meeting (C) and claim 19), acrylic acid (meeting (G)) and a silicone macromer. The Examiner further alleged that the silicone macromer shown on top of column 4 containing a terminal Si(CH3)3 group (see Table 8 in 6,074,698) confirms that the R groups in FM-0711 are, in fact, methyl. Hence, the Examiner alleged that the resulting copolymer of the reference anticipated the claimed invention.

Applicants respectfully submit that the outstanding rejection over claim 13, 15 and 19 is moot because independent claim 13 has been limited in scope to encompass the subject matter of the allowed claim 17. Claims 15 and 19, which depend from claim 13, are similarly allowable.

Accordingly, Applicants respectfully submit that the presently pending claims 13, 15 and 19 are not anticipated by Tsutsumi *et al.* and request the Examiner to withdraw the § 102(b) rejection.

3. Rejection of Claims 14, 16, 18 and 23 under 35 U.S.C. § 102(b)

The Office Action rejected claims 14, 16, 18 and 23 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,998,501 ("Tsutsumi *et al.*"). The Office Action stated:

> These claims in a product by process format and, while the products are prepared by different processes; they are inherently the same. Note that the tri-methylsilyl group containing compound and/or the tris(trimethylsiloxy)silyl containing compound can be any compound while it is possible to react one of the compounds in claim 18 with a copolymer and form a copolymer such as that made by Tsutsumi *et al.*
>
> Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of the product does not depend on its method of production.

Applicants respectfully traverse the rejection because contrary to the Office Action's assertion, the claims recite a method and not a product-by-process. It is well settled law, that a reference cannot anticipate method claims where the claims are drawn to a new **method** of using an "old" composition. These claims are patentable even though the composition itself could not be

patented.

In the present case, Tsutsumi *et al.* completely fails to teach a **method** for imparting flow-and-leveling properties to water based coatings, and instead only teaches the production of "an aqueous ink for inkjet printing capable of giving an elevated print density of printed matters, being improved in fixability to the material to be printed, water resistance and improved storage stability and scarcely scorching onto a printer head".

In other words, it is very clear that Tsutsumi *et al.* fails to anticipate the presently claimed method claims because the new **method** claims even though allegedly using a composition disclosed by the reference, is patentable because the method is not taught by the prior art.

Rule of Law

Anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Those elements must be expressly disclosed as in the claim. In re Bond, 15 USPQ2d 1566 (Fed. Cir. 1990).

But where the claims are drawn to a new method of using either an old or "obvious" composition, wherein the method has unobvious beneficial or useful effects, the new method claims are patentable

even though the composition itself could not be patented. Rohm and Haas Company v. Dawson Chemical Company, Inc. *et al.*, 217 USPQ 515 (D.C. S. Texas 1982) (citing In re Shetty, 566 F.2d 81, 195 USPQ 753 (C.C.P.A. 1977); In re Legator, 352 F.2d 377, 147 USPQ 322 (C.C.P.A. 1965)).

Pending claims

In the present application, claim 14 recites a **method** for imparting flow-and-leveling properties to a water base coating comprising the step of:

> adding a trimethylsilyl group-containing copolymer obtained by reacting a copolymer of a multifunctional monomer into which a trimethylsilyl group or a tris(trimethylsiloxy)silyl group can be introduced, the (meth)acrylic acid ester (C) and/or the (meth)acrylic acid ester (D) described in claim 1 (13) and the acrylamide (E) and/or the (meth)acrylic acid ester (F) and/or the (meth)acrylic acid (G) described in claim 1 (13) with a trimethylsilyl group-containing compound and/or a tri(trimethylsiloxy)silyl group-containing compound, wherein the above trimethylsilyl group-containing copolymer contains a trimethylsilyl group in a proportion of 2 to 64% by weight, a copolymerization unit originating in the

(meth)acrylic acid ester (C) and/or the (meth)acrylic acid ester (D) in a proportion of 2% by weight or more, a copolymerization unit originating in the acrylamide (E) and/or the (meth)acrylic acid ester (F) and/or the (meth)acrylic acid (G) in a proportion of 5% by weight or more and it has a number average molecular weight of 500 to 30000, to the water base coating.

Claims 16 and 18 and dependent claim 23 are also directed to a method for imparting flow-and-leveling properties to a water base coating.

Analysis

Tsutsumi *et al.* fails to teach the presently claimed method for imparting flow-and-leveling properties to water based coatings. Although Tsutsumi *et al.* generally teaches tri-methylsilyl group containing compound and/or the tris(trimethylsiloxy)silyl containing compound, nothing in the reference either expressly or inherently teaches or would motivate one of ordinary skill in the art to make the presently claimed **method** of imparting flow-and-leveling properties to water based coatings.

Tsutsumi *et al.* only teaches that their disclosed compositions are useful for the production of an aqueous ink for inkjet printing capable of giving an elevated print density of printed matters, the

sole purpose being to improve the fixability to a material to be printed and improving water resistance and storage stability. The compositions are also directed to preventing excessive heat on a printer head which oftentimes scorches the ink being employed on the printer head.

In contrast, the presently claimed method is used to impart specific properties onto waterborne paints used in the completely non-analogous automotive industry. In particular, the method is used for primer coatings, base coatings and top coatings for cars. The claimed method of imparting flow and leveling allows for waterborne coatings having vastly improved flow and leveling properties and replaces known acryl base polymers, modified silicone oils and other known flow and leveling agents.

Clearly, nothing in Tsutsumi *et al.* teaches the presently claimed method for imparting flow-and-leveling properties to water based coatings. Tsutsumi *et al.* fails to teach each and every claimed limitation of the independent claims. Therefore, a *prima facie* case of anticipation has not been established.

The assertion that the pending claims are drawn to a product-by-process format is incorrect. The claims very clearly recite a method and not a product-by-process.

Accordingly, Applicants respectfully submit that the presently claimed methods are not anticipated by Tsutsumi *et al.* and request

withdrawal of the rejection.

4. Rejection of Claims 24 under 35 U.S.C. § 103(a)

The Office Action in the parent rejected claim 24 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,998,501 ("Tsutsumi *et al.*"). The Office Action stated:

> While the copolymer in Example 1 does not contain any of the particularly claimed monomers, *please see* col. 5, lines 43 and 44, which teaches monomers within the breadth of the claim. One having ordinary skill in the art would have been motivated by the teachings in col. 5 of Tsutsumi *et al.* to include such monomers and this renders the instant claims obvious.

Applicants respectfully traverse the rejection because claim 24 depends from claims 15 or 16, which in turn respectively contain the allowed limitations of claim 17 as depending from claim 13 (claim 15) or is non-obvious for failure to teach all the claimed limitations of the recited method as set forth above in section 3 (claim 16).

Rule of Law

The Federal Circuit held that a *prima facie* case of obviousness must establish: (1) some suggestion or motivation to

modify the references; (2) a reasonable expectation of success; and (3) that the prior art references teach or suggest all claim limitations. Amgen, Inc. v. Chugai Pharm. Co., 18 USPQ2d 1016, 1023 (Fed. Cir. 1991); In re Fine, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988); In re Wilson, 165 USPQ 494, 496 (C.C.P.A. 1970).

Moreover, where the claims are drawn to a new method of using either an old or "obvious" composition, wherein the method has unobvious beneficial or useful effects, the new method claims are patentable even though the composition itself could not be patented. Rohm and Haas Company v. Dawson Chemical Company, Inc. *et al.*, 217 USPQ 515 (D.C. S. Texas 1982) (citing In re Shetty, 566 F.2d 81, 195 USPQ 753 (C.C.P.A. 1977); In re Legator, 352 F.2d 377, 147 USPQ 322 (C.C.P.A. 1965)).

Analysis

With respect to the dependency of the claim 24 to claim 16, it is clear that the cited reference fails to teach the claimed method and hence, fails to meet the *prima facie* case because each and every claimed limitation is not taught.

Although Tsutsumi *et al.* teaches tri-methylsilyl group containing compound and/or the tris(trimethylsiloxy)silyl containing compound, nothing in the reference either expressly or inherently teaches or would motivate one of ordinary skill in the

art to make the presently claimed **method** of imparting flow-and-leveling properties to water based coatings.

Clearly, each and every claimed limitation of the currently amended claims are not taught by the cited references. Therefore, a *prima facie* case of obviousness has not been established.

Accordingly, Applicants respectfully submit that the presently claimed invention is unobvious over Tsutsumi *et al.* and respectfully request withdrawal of the rejection.

1. **Rejection of Claims 13-16 and 18-24 under the judicially created doctrine of obviousness-type double patenting**

The Office Action rejected claims 13-16 and 18-24 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 6,630,522 ("Kawase *et al.*") in view of U.S. Patent No. 5,998,501 ("Tsutsumi *et al.*"). The Office Action stated:

> U.S. Patent No. 6,630,522 in view of Tsutsumi *et al.* '522 teaches additives for paints and inks which result in high quality "vanishing". These polymers meet those found in the instant claims. See for instance claim 1, in which a the monomer (A) will result in a terminal Si(CH3)3 group, monomer (B) meets (G) or (C) while monomer (C) meets (D) or (F). The molecular weight and amounts of each monomer fall within that claimed ranges. See claim 4 which teaches the monomer (H). This differs from the instant claims in that it does not

> specifically claim water based inks or paints.
>
> Tsutsumi *et al.* disclosed that water based inks are quite common in the art.
>
> Upon reading the teachings in '522 one having ordinary skill in the art would have been motivated to look to the prior art to discover inks that are known in the art as the inks used in '522. from this the skilled artisan would have been motivated to turn to the teachings and inks in Tsutsumi *et al.* and would have found the selection of a water based ink to have been obvious since such inks are known and commonly used in the art. In this manner the instant claims are rendered obvious.

Applicants note that the rejection was improperly made as a double patenting obviousness rejection because the secondary reference to Tsutsumi *et al.* is assigned to a different entity than the assignor of the captioned application.

In particular, Tsutsumi *et al.* is assigned to Kao Corporation whereas the captioned application is assigned to Kusumoto Chemicals Ltd. Hence, as properly examined under Chart II-B of Chapter 800 of the MPEP, the proper basis for the present rejection is under §102(e)/§103 and not as a double patenting rejection.

Where the rejection is made under §102(e)/§103, the primary reference to Kawase *et al.* is disqualified as commonly owned art.

In particular, Kawase *et al.* was patented on October 7, 2003, with a U.S. filing date of October 23, 2001. Since the captioned

application is a continuation of application of 10/151,852 having a filing date of May 22, 2002, Kawase *et al.* can only be cited as § 102(e) art.

Given that the reference is § 102(e) art, it can be disqualified as being commonly owned. Evidence showing such common ownership is shown at Reel/Frame 012926/0592, which shows an assignment to Kusumoto Chemical, Ltd., which is the same assignee as in the cited patent to Kawase.

Applicants further point out that even if the copolymer which is disclosed in claims 1-5 of Kawase *et al.* (US '522) is a copolymer similar to the claimed invention, the copolymer of Kawase *et al.* is used as an additive for imparting flow and-leveling properties to a **non**-aqueous coating, whereas the present invention is drawn to aqueous coatings. This difference only is sufficient to find non-obviousness.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection and an allowance of all the presently pending claims.

CONCLUSION

In light of the foregoing, Applicants submit that the application is now in condition for allowance. The Examiner is therefore respectfully requested to allow the pending claims. Favorable action with an early allowance of the claims pending is earnestly solicited.

Respectfully submitted,

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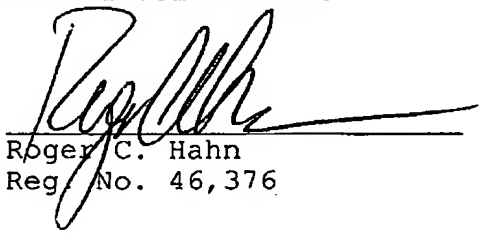

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